(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 16 June 2005 (16.06.2005)

PCT

(10) International Publication Number WO 2005/053586 A1

(51) International Patent Classification⁷: H03B 29/00 A61F 11/06,

(21) International Application Number:

PCT/US2004/039532

(22) International Filing Date:

24 November 2004 (24.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/525,568

26 November 2003 (26.11.2003) US

(71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 5th Floor, 1111 Franklin Street, Oakland, CA 94607-5200 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): DE CALLAFON, Raymond [NL/US]; 543 Rosemont Street, La Jolla, CA 92037 (US).

(74) Agents: KIM, B., Joe et al.; Greer, Burns & Crain, Ltd., 300 South Wacker Drive, Suite 2500, Chicago, IL 60606 (US). (81) Designated States (unless otherwise indicated. for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ. BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

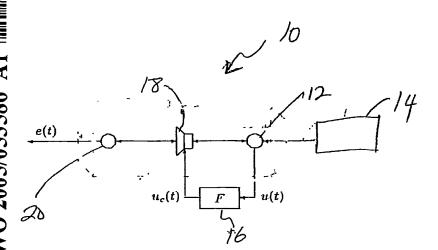
Published:

with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ACTIVE NOISE CONTROL METHOD AND APPARATUS INCLUDING FEEDFORWARD AND FEEDBACK CONTROLLERS



(57) Abstract: An active noise control apparatus for reducing noise from a noise source includes a microphone for detecting noise produced by the noise source, and a generalized finite impulse response (FIR) filter for receiving noise signals of the detected noise from the microphone and generating control signals for reducing the noise from the noise source. A speaker produces sound based on the control signals from the generalized FIR filter for substantially canceling the noise from the noise source.